

REMARKS

The present remarks are in response to the Office Action dated September 20 2007, in which the Office Action issued a rejection of claims 1-18, 24, 25, and 28-30. At the outset, Applicant wishes to thank the Examiner for withdrawing the non-statutory subject matter and written description rejections.

In this response, Applicant has addressed the objection regarding the typographical error in the amendment of claim 13 by restoring the previous limitation of "determining a maximum size" instead of "dividing a maximum size" as previously claimed. Further, the Applicant responds to the present Office Action with detailed comments to overcome the rejections, and respectfully requests that the pending claims be placed in a state of allowance.

No new matter has been added.

A. Obviousness Rejections (35 U.S.C. § 103)

The Examiner has rejected claims 1-18 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,841,432 to Carmel et al. (hereinafter referred to as "Carmel") in view of US Patent No. 5,692,117 to Berend (hereinafter referred to as "Berend") and US Patent No. 5,113,493 to Crosby (hereinafter referred to as "Crosby"). Applicant respectfully disagrees. We submit that these references do not teach, describe or suggest the features of Applicant's claims.

Claim 1 recites a method for displaying an animation having several steps, including: receiving an instruction to display an animation, the animation comprising a plurality of images ordered for sequential display; retrieving an animation file responsive to the instruction, the animation file providing an ordering of the images; determining a maximum size related to a maximum amount of memory usable to load images; determining a first set of images, which aggregate to a size up to the maximum size, the first set of images having final image; determining a second set of the images, which aggregate to a size up to the maximum size, the images in the second set being in sequence behind the final image; generating a first segment file indicative of the first set of images; generating a second segment file indicative of

the second set of images; associating a callback identifier with the second segment file; providing the callback identifier along with the first segment file; loading the first set of images into a memory readable by an animation engine according to the first segment file; displaying sequentially, using the image order in the animation file, each image in the first set as a first animation segment; retrieving the callback identifier from the first segment file; using the callback identifier to load the second set of images into the memory according to the second segment file; and displaying sequentially, using the image order in the animation file, each image in the second set as a second animation segment.

(i) Claim Limitation: “determining a maximum size related to a maximum amount of memory usable to load images”

The Office Action notes that Carmel does not specifically teach determining a maximum size related to a maximum amount of memory usable to load images, but Crosby teaches this limitation. In other words, Crosby teaches “reading in large groups of animation file records, wherein still images are read into a current image array and pixel-set records of the current image array are compared to the previous pixel-set records thus indicating that the animation file records include images, according to file size and computer memory size such that the file size is kept within the limit of what may be entirely read into memory is understood to be determining a maximum size related to a maximum amount of usable memory as claimed” (See Office Action dated September 20, 2007, page 5, lines 20-21; page 7, lines 3-12).

In Applicant’s independent claims 1, 13, and 24, the limitation of “maximum” indicates a maximum amount of memory usable for loading images/objects. As explained in Applicant’s previous response filed on August 29, 2006, “maximum” is used as an upper bound on how large a set of images can be where “images” is defined to be “displayable images”, so it is clear the images being claimed are not part of images that need to be combined with other parts or files to create a single displayable image. In addition, the Office Action states that Crosby’s animation file C consists of a number of individual pixel-set records, text records and projection records and pixel values for the current image stored in the current image array which are placed in the pixel-set records, thus indicating that the animation file does

contain images (see Crosby, column 2, lines 7-13 and 25-40; column 3, lines 30-35; column 6, lines 28-37; column 7, lines 2-30 and Office Action, page 20, lines 17-21, page 21, lines 1-13).

However, Applicant respectfully submits the maximum size as described in Crosby is used to load the records but not the images because Crosby's animation file C does not contain any images. In fact, Crosby describes that the animation file C consists of a number of individual pixel-set records, text records and projection records and pixel values for the current image stored in the current image array are placed in the pixel-set records, thus indicating that the animation file does contain images. However, pixel-set records of Crosby's animation file C notes the difference between the previous image and the current image, but not the pixel values for the current image stored in the current image array, as maintained in the Office Action. In Crosby, each still image is slightly altered from the previous image, as with standard movie films, so that the "build animation file" operation of the developer program, which is to develop animation file C, is as follows: first, the background image is copied into the current image matrix; second, the new foreground image is overlaid from matrix 50 wherein the image is read from file; third, matrix 54 (the current image) is compared to matrix 56 (the previous image) and notices differences from previous image and puts command to file; and fourth, matrix 54 is copied into matrix 56 to update the previous image (see Crosby, Figs. 2, 3; column 2, lines 9-10; column 4, lines 41-54; and column 11, lines 4-16).

Furthermore, the differences between the previous image and the current image in Crosby are recorded using the record types, such as types 2, set leaf and row; type 3, set pixel column and color, etc... (see Crosby, column 4, lines 41-54). The record type is a description of the differences between the previous image and the current image, but not the pixel value of the images. In fact, the animation file C generated by Crosby consists of a number of record types used to describe the difference between the previous image and the current image, text records and projection records, but not the content of the displayable image, as recited in Applicant's claims. Therefore, Applicant's limitation of "maximum" for entirely reading the animation file into the memory in Crosby applies for the records, and not the images.

Consequently, as submitted in our previous response as well, neither Carmel nor Crosby disclose the limitation of determining a maximum size related to a maximum amount of memory usable to load images, as claimed in Applicant's claims 1, 13 and 24.

Moreover, with regards to the rejections of the dependent claims 5, 6, 14 and 15, the Office Action states that Crosby teaches, for instance, that the maximum size is set at a predetermined memory size for an embedded system and that the maximum size is generated responsive to an inquiry regarding available memory (See Office action, page 8, lines 20 – page 10, line 4; and page 13, lines 14-17).

Applicant again respectfully submits that predetermining the size of the available memory in an embedded system before reading in large groups of animation file records in Crosby merely means knowing the size of the available memory. On the contrary, Applicant recites that the maximum size may be set dynamically by the embedded system according to current processor and memory conditions, or may be predefined for a specific device or model of device (See also, Applicant's Specification, page 4, paragraph 0033). In other words, the maximum size in different ways may be configured to the specified value which may be not equal to the size of the available memory, while Crosby just passively learns the size of the current available memory.

(ii) Claim Limitation: aggregating of image sizes and relating the aggregate to a maximum size and sizing of a set of images

Furthermore, referring to claims 1 and 13, the Office Action notes that Carmel teaches that each frame segment contains a maximum size of up to five images/layers containing a maximum of up to 255 objects per image and each animation file includes information comprising the total number of images and that this total number of frames thus discloses the sizing of a set of images. As a result, it concludes that Carmel, modified by Crosby, teaches that "the size of the animation file is kept within the limit of what may be entirely read into memory thus indicating that a first set of images/frames, animation file, is aggregated to a size up to the limit which is an upper bound indicating the maximum size" (See Office Action, page 21, line 16 - page 22, line 4).

Applicant respectfully submits that the “maximum size” referred to in Carmel applies to the layer and not the images themselves. Carmel discloses that each frame is made up of layers which can be up to 5 layers or even 200 layers. The layers can be made up of images, or can simply be a layer without an image (see Carmel, column 4, lines 32-45). That is, Carmel teaches that the number or size of the images in a layer cannot be determined, and there is no limitation of the number of images or size of images in Carmel, whereas in Applicant’s claims, the set of images are divided into sequential subsets of images, each subset having a size up to a maximum size, being indicative of an animation segment, as recited in claim 13. In addition, as previously explained above, Crosby does not teach, suggest, or describe the limitation of the maximum amount of memory usable to load images.

As a result, neither Carmel nor Crosby teaches this limitation of Applicant’s claims of aggregating the image sizes and then relating the aggregate to a maximum size and sizing of a set of images. Therefore, in view of the above, these references fail to teach, describe, or suggest all the limitations of independent claim 1 and 13.

(iii) Claim Limitation: a callback identifier for linking of the animation segment files between each other but not links going frame-to-frame

Referring to a callback identifier, as recited in claims 1, 8-11, 17, and 24 of the application, the Office Action states that Berend teaches that “a complete animation file, an epoch, is comprised of multiple animation sequences that lists a first frame and a last frame and has a pointer from the first frame of the sequence to the last frame of the previous sequence and a pointer from the last frame of the sequence to the first frame of the next sequence thus providing a linking between animation sequence files as claimed” (See Berend, column 16, lines 46-60 and column 18, lines 21-28; Office Action, page 23, lines 1-6).

Applicant respectfully submits that the callback identifier in Berend is used for linking the two frames in which the character previously defined is represented in a particular shape, orientation or position are defined, corresponding to spaced apart frames of an animated sequence (See Berend, column 14, lines 54-58). However, this is not equivalent to the concept of a segment comprised by images, pointing to one other segment file, as Applicant’s claims recite. The Office Action notes that

Applicant's previous response with regards to this point was not persuasive. However, from the passages in Berend identified by the Office Action (See Berend, column 16, lines 46-60 and column 18, lines 21-28), Berend's frames simply cannot be equated with Applicant's segment.

Accordingly, based on Applicant's previously filed response (See Applicant's Response filed August 29, 2006, page 15, line 1 - page 16, line 8), Applicant respectfully submits that neither Carmel nor Berend teaches, describes, or suggests a callback identifier for linking the animation segment files comprising images between each other.

(iv) Claims 12, 17, and 18 (at least some of the memory used during the loading of the content associated with the first media/segment file must be made available for loading (released) before loading of a second segment/media)

Referring to claims 12, 17 and 18, based on the rejection of claim 17, the Office Action states that Crosby "teaches dividing an animation file containing a large number of records such that each file segment fits available memory while still being large enough to reduce the pauses and jerks in the animated display caused by reading the records intermittently simultaneously with the animated display indicates that the memory is being released in order to allow the next file segment to be read into main memory" (See Office Action, page 22, lines 14-19).

Applicant submits that Crosby teaches making pauses and jerks in the animated display if reading the records intermittently and simultaneously with the animated display. Thus, Crosby teaches reading all the records of the animated file into the computer memory at first or in large groups of "super" records in order to overcome these obvious disadvantages (See Crosby, column 8, lines 13-43). In contrast, in Applicant's invention, memory is released during displaying of the first segment and once the indication that sufficient memory is available for the second segment occurs, the second set of images are loaded into the animation processor while the images in the first set are being displayed (See also, Applicant's Specification, page 5, paragraphs [0041]-[0043]). In short, Crosby does not teach the use of the available memory to load a second segment during the display of the

first segment, while Applicant's claims recite a method to load the second segment and display the first segment sequentially, which can greatly improve its efficiency.

Consequently, contrary to Applicant's claims, neither Carmel nor Crosby discloses that at least some of the memory used during the loading of the content associated with the first media/segment file must be made available for loading (released) before loading of a second segment/media. Again, the references fail to teach, describe, or suggest all the limitations of these claims.

Moreover, all dependent claims each include, by way of their dependencies, *inter alia*, all the limitations of its independent parent claim, in this case, claim 1 and 17. Therefore, claims 12 and 18 are also patentable over the primary reference Carmel and the secondary reference Berend because claims 1 and 17 are not obvious in view of these cited references, either alone or in combination with Crosby. Therefore, none of the references, either alone or in combination, describe or suggest the features of the dependent claims 12 and 18.

B. Conclusion

In view of all of the foregoing, claims 1-18, 24-25, and 28-30 overcome the Office Action rejection herein and are now patentably distinct and in condition for allowance, which action is respectfully requested. If necessary, applicant requests, under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above-identified application and to charge the fees for a large entity under 37 CRFR 1.17(a). The Director is authorized to charge any additional fee(s) or any underpayment of fee(s) or credit any overpayment(s) to Deposit Account No. 50-3001 of Kyocera Wireless Corp.

Respectfully Submitted;

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